1.0 INTRODUCTION

Chapter 1 begins with an overview of the National Nuclear Security Administration's Modern Pit Facility (MPF) proposal. This chapter includes background information on the MPF mission, the scope of this MPF Environmental Impact Statement (EIS), and the alternatives analyzed in this EIS. This chapter also discusses other National Environmental Policy Act documents related to the MPF proposal, and the scoping process used to obtain public input on the issues that are addressed in this EIS. The chapter concludes with an outline of the organization of the document.

1.1 OVERVIEW

The U.S. Department of Energy's (DOE) National Nuclear Security Administration (NNSA) is responsible for the safety and reliability of the U.S. nuclear weapons stockpile, including production readiness required to maintain that stockpile. Since 1989, DOE has been without the capability to produce stockpile certified plutonium pits, which are an essential component of nuclear weapons. NNSA, the Department of Defense (DOD), and Congress have highlighted the lack of long-term pit production capability as a national security issue requiring timely resolution. While a small interim capacity is currently being established at the Los Alamos National Laboratory (LANL), classified analyses indicate projected capacity requirements (number of pits to be produced over a period of time), and agility (ability to rapidly change from production of one pit type to another, ability to simultaneously produce multiple pit types, or the flexibility to produce pits of a new design in a timely manner) necessary for long-term support of the stockpile will require a long-term pit production capability. In particular, identification of a systemic problem associated with an existing pit type, class of pits, or aging phenomenon cannot be adequately responded to today, nor could it be with the small capability being established at LANL (see Chapter 2 of this Environmental Impact Statement [EIS] for a more detailed discussion regarding the purpose and need for a Modern Pit Facility [MPF]).

Prudent risk management requires that NNSA initiate action now to assure readiness to support the stockpile and that appropriate pit production capacity is available when needed. Pursuant to the *National Environmental Policy Act* of 1969 (NEPA), as amended (42 USC 4321 *et seq.*), and the DOE Regulations Implementing NEPA (10 CFR Part 1021), NNSA is preparing this Supplement to the Programmatic EIS (PEIS) on Stockpile Stewardship and Management (SSM) for a Modern Pit Facility (MPF) in order to decide: (1) whether to proceed with the MPF; and (2) if so, where to locate the MPF. Hereafter, this document will be referred to as the Modern Pit Facility Environmental Impact Statement (MPF EIS).

1.1.1 Relevant History

Plutonium pits for the nuclear weapons stockpile were manufactured at the DOE Rocky Flats Plant in Golden, Colorado, from 1952-1989. In December 1989, due to environmental and safety concerns, production at Rocky Flats was shut down by the DOE and no stockpile-certified

pits have since been produced by this country. Today, the United States is the only nuclear weapons power without the capability to manufacture plutonium pits suitable for use in the nuclear weapons stockpile.[1] During the mid-1990s, DOE conducted a comprehensive analysis of the capability and capacity needs for the entire Nuclear Weapons Complex and evaluated alternatives for maintaining the Nation's nuclear stockpile in the *Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management* (SSM PEIS) (DOE/EIS-0236) (DOE 1996c). Issued in September 1996, the SSM PEIS assessed future stockpile requirements and looked extensively at pit manufacturing capability and capacity needs. The SSM PEIS evaluated reasonable alternatives for re-establishing interim pit production capability on a small scale. A large pit production capacity—in line with the capacity planned for other manufacturing functions—was not evaluated in the SSM PEIS "because of the small current demand for the fabrication of replacement pits, and the significant, but currently undefined, time period before additional capacity may be needed." In the SSM PEIS Record of Decision (ROD) (61 FR 68014) on December 26, 1996, the Secretary of Energy decided to re-establish an interim pit fabrication capability, with a small capacity, at LANL. That decision limited pit fabrication to a facility "sized to meet programmatic requirements over the next ten or more years." In the ROD, DOE committed to "performing development and demonstration work at its operating plutonium facilities over the next several years to study alternative facility concepts for larger capacity."

Subsequent to the SSM PEIS ROD, a number of citizen groups filed suit challenging the adequacy of the SSM PEIS. In August 1998, the SSM PEIS litigation was resolved. As a result of that litigation, DOE agreed to entry of a court order that required, "prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (50 pits per year [ppy] under routine conditions, 80 ppy under multiple-shift operations), DOE shall prepare and circulate a Supplemental PEIS, in accordance with DOE NEPA Regulation 10 Code of Federal Regulations (CFR) 1021.314, analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and shall issue a ROD based thereon." This MPF EIS is being prepared in part to satisfy that obligation.

Following the SSM PEIS, in January 1999, DOE prepared the *Site-Wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory* (LANL SWEIS) (DOE/EIS-0238) (DOE 1999a), which evaluated site-specific alternatives for implementing pit production at LANL. Consistent with the SSM PEIS ROD, the LANL SWEIS evaluated alternatives that would implement pit production with a capacity up to 50 ppy under single-shift operations and 80 ppy using multiple shifts. In the ROD for the LANL SWEIS (64 FR 50797) issued on September 20, 1999, DOE decided to initiate actions that would allow for the production of up to 20 ppy at LANL, and deferred any decision to expand pit manufacturing beyond that level. Consistent with the 1996 SSM PEIS ROD and the 1999 LANL SWEIS ROD, NNSA has been establishing a small pit manufacturing capability at LANL. The establishment of the interim pit production capacity is expected to be completed in 2007.

[1] NNSA has demonstrated the capability to manufacture development pits at the LANL TA-55 Plutonium Facility.

1.1.2 Function of the Pit in Nuclear Weapons

Nuclear weapons function by initiating and sustaining nuclear chain reactions in highly compressed material which can undergo both fission and fusion reactions. Modern nuclear weapons have a primary, which is used as the initial source of energy, and a secondary, which provides additional explosive energy release. The primary contains a central core, the "pit." Nuclear weapons cannot operate without a fully functioning pit.

1.1.3 Nuclear Weapons Stockpile

The size and composition of the U.S. nuclear weapons stockpile are determined annually by the President. The Secretaries of Defense and Energy jointly sign the Nuclear Weapons Stockpile Memorandum (NWSM), which includes the Nuclear Weapons Stockpile Plan (NWSP) as well as a long-range planning assessment. As such, the NWSM is the basis for all DOE stockpile support planning. DOD prepares the NWSP based on military requirements and coordinates the development of the plan with NNSA concerning its ability to support this plan. The NWSP, which is classified, covers the current year and a 5-year planning period. It specifies the types and quantities of weapons required, and sets limits on the size and nature of stockpile changes that can be made without additional approval of the President. The NWSM directly specifies the number and types of weapons required to support the stockpile.

Chapter 2 discusses the relevant factors, such as treaties and the Nuclear Posture Review (NPR), that shape national security policies related to the MPF Proposed Action.

1.2 PROPOSED ACTION, ENVIRONMENTAL IMPACT STATEMENT SCOPE, AND ALTERNATIVES

NNSA proposes to site, construct, and operate a MPF for the purpose of producing plutonium pits to support long-term national security needs. A range of pit production capacities consistent with national security requirements is analyzed in this EIS (see Chapters 2 and 3 for a discussion of pit production capacity and the range of capacities that is utilized in this EIS). This MPF EIS analyzes the reasonably foreseeable environmental impacts of, and alternatives to, operating at the various capacities. Consistent with this approach, the MPF EIS also evaluates the No Action Alternative of maintaining the plutonium pit capabilities at LANL that are currently planned to be in place by 2007, and an upgrade of the Technical Area (TA)-55, Plutonium Facility, Building 4 (PF-4), at LANL.

For the proposed MPF, this EIS analyzes all reasonable site locations. As described in detail in Appendix G, NNSA utilized a site screening process to determine a reasonable range of site alternatives for the MPF EIS. In this site screening process, all existing major DOE sites were initially considered to serve as potential host locations for a MPF. The site screening analysis considered the following criteria: population encroachment, mission compatibility, margin for safety/security, synergy with existing/future plutonium operations, minimizing transportation of plutonium, NNSA presence at the site, and infrastructure. The first two criteria were deemed to be "exclusionary" criteria; that is, a site either passed or failed on each of these two criteria. The sites that passed the exclusionary criteria were then scored against all criteria. Based upon results from the site screening analysis, the following were determined to be reasonable

alternatives for a MPF: (1) Los Alamos Site, New Mexico; (2) Nevada Test Site (NTS); (3) Carlsbad Site, New Mexico; (4) Savannah River Site (SRS), South Carolina; and (5) Pantex Site, Texas.

1.3 *NATIONAL ENVIRONMENTAL POLICY ACT* STRATEGY

Deciding whether to proceed with a MPF, and if so, where to locate the MPF, is a major Federal action that could significantly affect the quality of the human environment; therefore, an EIS is required. NNSA envisions this MPF EIS as a "programmatic document" that would support these two decisions. In addition, the MPF EIS analyzes a No Action Alternative and an Upgrade Alternative to the existing PF-4 at TA-55 at LANL. If the Secretary of Energy decides to proceed with a MPF, a second, tiered, project-specific EIS would be prepared after the MPF EIS ROD. That tiered EIS would utilize more detailed design information to evaluate reasonable site-specific alternatives in the vicinity of the host site picked in the MPF EIS ROD. In the event that the tiered EIS considers alternative site locations beyond existing DOE site boundaries, such locations would be required to be consistent with the original host site selection criteria. That EIS would ultimately support a ROD for the construction and operation for a MPF of a specific capacity and design at a specific location.

1.4 OTHER RELEVANT *NATIONAL ENVIRONMENTAL POLICY ACT* REVIEWS

1.4.1 Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management, DOE/EIS-0236 (SSM PEIS)

The SSM PEIS evaluated alternatives for maintaining the safety and reliability of the Nation's nuclear stockpile in the post-Cold War world (DOE 1996c). In the December 26, 1996, SSM PEIS ROD (61 FR 68014), the Secretary of Energy decided, among other decisions, to establish an interim, small pit fabrication capability at LANL "sized to meet programmatic requirements over the next ten or more years." In the ROD, DOE committed to "performing development and demonstration work at its operating plutonium facilities over the next several years to study alternative facility concepts for larger capacity." Consistent with the SSM PEIS ROD, a MPF would provide a larger plutonium pit capacity to meet long-term national security needs.

1.4.2 Site-Wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory, DOE/EIS-0238 (LANL SWEIS)

The LANL SWEIS evaluated alternatives for the continued operation of LANL (DOE 1999a). Four alternatives were evaluated: (1) No Action, (2) Expanded Operations, (3) Reduced Operations, and (4) a Greener Alternative. The LANL SWEIS evaluated site-specific alternatives for implementing pit production at LANL consistent with the SSM PEIS ROD. A LANL SWEIS ROD was issued on September 20, 1999, to select the Expanded Operations Alternative (64 FR 50797) with a modification in the level of pit production. This alternative included the continuation of all activities presently undertaken at LANL, at the highest level of activity, and an increased pit production capability. In this ROD, DOE decided to implement actions that would allow for the production of up to 20 ppy at LANL, and deferred any decision to expand pit manufacturing beyond that level. The LANL SWEIS provides the framework for the No Action Alternative in the MPF EIS. That is, if the Secretary of Energy decides to not

proceed with a MPF or upgrade the LANL plutonium pit capabilities, then NNSA would rely upon the planned capacity at LANL to meet long-term national security needs (i.e., the No Action Alternative).

1.4.3 Final Programmatic Environmental Impact Statement for the Storage and Disposition of Weapons-Usable Fissile Materials, DOE/EIS-0229 (S&D PEIS)

The S&D PEIS analyzed the potential environmental consequences of alternatives for the long-term storage (up to 50 years) and disposition of plutonium from U.S. nuclear weapon dismantlements (DOE 1996e). Three storage alternatives were evaluated: (1) Upgrade at Multiple Sites, (2) Consolidation of Plutonium, and (3) Collocation of Plutonium and Enriched Uranium. Six candidate sites were considered: Hanford Site, NTS, Idaho National Engineering Laboratory, Pantex, Oak Ridge Reservation, and the SRS. On January 14, 1997, DOE issued a ROD (62 FR 3014) to upgrade the plutonium storage capabilities of Pantex, Hanford, and SRS and to continue to store plutonium at these facilities. Weapons-usable plutonium at Rocky Flats would be transported to Pantex and SRS. On August 13, 1998, DOE issued an amended ROD (63 FR 43386) to expand improvements to SRS storage facilities to allow for accelerated movement of plutonium from Rocky Flats. DOE further decided in the ROD that the Y-12 National Security Complex (Y-12) on the Oak Ridge Reservation would continue to store nonsurplus enriched uranium (for the long-term) and surplus enriched uranium (on an interim basis) in upgraded facilities pending final disposition. Based on these decisions, plutonium pits to be used in a MPF would be stored at Pantex and enriched uranium for a MPF would be stored at Y-12.

1.4.4 Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada, DOE/EIS-0243 (NTS SWEIS)

The NTS SWEIS evaluated alternatives for the continued operation of NTS (DOE 1996b). Four alternatives were evaluated: (1) No Action Alternative, (2) Discontinuation of Operations, (3) Expanded Use, and (4) Alternate Use of Withdrawn Lands. On December 13, 1996, DOE published a ROD (61 FR 65551) selecting the Expanded Use Alternative. In July 2002, DOE issued a *Supplement Analysis for the Final EIS for the NTS and Off-Site Locations in the State of Nevada* (DOE/EIS-0243-SA-01) (DOE 2002i). This supplement analysis determined that there were no significant changes from actions foreseen in 1996. Furthermore, there were no new major proposals and projects. Accordingly, it was determined that no supplemental EIS for the 1996 NTS EIS is required. For purposes of the MPF EIS, the analyses and decisions in the NTS SWEIS ROD and Supplement Analysis represent the No Action Alternative at NTS. That is, if the Secretary of Energy decides not to proceed with a MPF, or decides not to locate a MPF at NTS, then NNSA would conduct business at NTS within the framework of the NTS SWEIS ROD and Supplement Analysis.

1.4.5 Final Environmental Impact Statement for the Continued Operation of Pantex and Associated Storage of Nuclear Weapons Components, DOE/EIS-0225 (Pantex SWEIS)

The Pantex SWEIS evaluated alternatives for the continued operation of Pantex (DOE 1996d). The SWEIS examined environmental impacts resulting from a reasonable range of activity levels

by assessing the operations on 2,000, 1,000, and 500 weapons per year. The EIS also addressed environmental impacts resulting from the relocation of interim pit storage to other DOE sites. On January 27, 1997, DOE issued a ROD (62 FR 3880) selecting the implementation of upgrades to enable continued operations, and continued interim pit storage, at Pantex, to enable increasing the storage level from 12,000 to 20,000 pits.

In April 2002, DOE completed a *Supplement Analysis for the Final EIS for the Continued Operation of Pantex and Associated Storage of Nuclear Weapon Components* (DOE/EIS-0225/SA-03) (DOE 2002e). This analysis looked at the SWEIS completed in 1996 and concluded that there is no need to supplement the Pantex SWEIS.

With respect to the MPF EIS, the decision to store up to 20,000 pits in upgraded storage facilities at Pantex is applicable to all alternatives analyzed in the MPF EIS; that is, regardless of any decisions in the MPF EIS, Pantex will continue to store plutonium pits for the Nation's nuclear weapon stockpile. Additionally, if the Secretary of Energy decides to not proceed with a MPF, or decides to not locate a MPF at Pantex, then NNSA would conduct business at Pantex within the framework of the Pantex SWEIS ROD and Supplement Analysis.

1.4.6 Final Supplemental Environmental Impact Statement for the Waste Isolation Pilot Plant Disposal Phase, DOE/EIS-0026-S-2 (WIPP SEIS)

In 1980, the original *Final Environmental Impact Statement for the Waste Isolation Pilot Plant* (DOE/EIS-0200) was issued. Supplemental EISs (SEISs) was issued in 1990 and again in 1997. In addition, several Supplement Analyses (SAs) have been issued. In July 2002, DOE issued the WIPP EIS-SA (DOE/EIS-0026-S-2) (DOE 1997b). This EIS-SA, supported by the earlier analyses, examined the alternatives associated with the treatment, storage, transportation and disposal of transuranic (TRU) waste at WIPP, located near Carlsbad, New Mexico. On September 6, 2002, DOE issued a revised ROD (67 FR 56989) to allow for shipments from various locations to WIPP. For purposes of the MPF EIS, the analyses and decisions in the WIPP SEIS and ROD represent the No Action Alternative at WIPP. That is, if the Secretary of Energy decides to not proceed with a MPF, or decides to not locate a MPF at WIPP, then DOE would conduct business at WIPP within the framework of the RODs for WIPP EISs and SEISs.

1.4.7 Nonnuclear Consolidation Environmental Assessment, DOE/EA-0792

In June 1993, DOE issued the *Nonnuclear Consolidation Environmental Assessment* (Nonnuclear Consolidation EA) (DOE 1993). This EA analyzed the proposed consolidation of the facilities within the Nation's Nuclear Weapons Complex that manufactured the nonnuclear components used in the Nation's nuclear weapons arsenal. Based on the findings of this EA, on September 14, 1993, DOE issued a Finding of No Significant Impact (FONSI) which resulted in defense activities being withdrawn from the Mound Plant in Miamisburg, Ohio, the Pinellas Plant in Pinellas, Florida, and the nonnuclear activities at the Rocky Flats Plant in Golden, Colorado (58 FR 36658). These activities were relocated and consolidated at the Kansas City Plant in Kansas City, Missouri and Sandia National Laboratories, New Mexico. This action also transferred the tritium handling activities performed at the Mound Plant to Savannah River Site. With respect to the MPF EIS, the decision based on this Nonnuclear Consolidation EA would

apply equally to all MPF alternatives. That is, nonnuclear components for pits would be produced in existing facilities and shipped to the pit production facility for assembly into pits.

1.4.8 Supplement Analysis, Changes Needed to the Surplus Plutonium Disposition Program

On April 19, 2002, DOE issued an amended ROD (67 FR 19432) for both the *Surplus Plutonium Disposition Final Environmental Impact Statement* (DOE/EIS-0283) (DOE 1999h) and the *Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement* (DOE/EIS-0229) (DOE 1996e). This ROD cancelled the immobilization component of the U.S. surplus plutonium disposition program for surplus weapons-usable plutonium described in these two EISs and selected the alternative of immediate implementation of consolidated long-term storage at SRS of surplus non-pit plutonium now stored separately at Rocky Flats. The ROD also explained that DOE's current disposition strategy involves a mixed oxide-only approach, under which DOE would dispose of up to 34 metric tons (37 short tons) of surplus plutonium by converting it to mixed oxide fuel and irradiating it in nuclear power reactors. The Supplement Analysis concluded that changes to the Mixed Oxide Fuel Fabrication Facility (MOX Facility) in the F-Area at SRS to allow for the amended ROD would result in no additional impacts, and that no new or different bounding accident scenarios had been identified. Accordingly, it was determined that the original analysis was sufficient and that a Supplement EIS was not required. Relative to the MPF EIS, the NNSA considered use of the plutonium disposition facilities at SRS, but eliminated this option from detailed study (see Chapter 3, Section 3.4.2).

1.4.9 Environmental Impact Statement for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, DOE/EIS-0350D (CMRR EIS)

DOE/NNSA is currently preparing an EIS for the Chemistry and Metallurgy Research Building Replacement Project (CMRR) at LANL (DOE 2003). The purpose of the CMRR EIS is to evaluate the potential environmental impacts associated with alternatives for replacing the existing Chemistry and Metallurgy Research Building (CMR) at LANL, which is scheduled to be shut down in approximately 2010. The preferred alternative is to construct a new CMRR Facility at TA-55, consisting of two or three buildings. On July 23, 2002, DOE/NNSA published a Notice of Intent (NOI) to prepare the CMRR EIS in the *Federal Register* (67 FR 48160). Public Scoping Meetings were held in August 2002. DOE/NNSA issued a Draft CMRR EIS in May 2003. The Final CMRR EIS is expected to be issued in late 2003 or early 2004. Under the No Action Alternative and the TA-55 Upgrade Alternative, direct analytical, chemistry and metallurgical support would be provided by the existing CMR or the proposed CMRR (see Chapter 3, Section 3.4.5).

1.5 PUBLIC SCOPING PROCESS

Scoping is a process in which the public and stakeholders provide comments directly to the Federal Agency on the scope of the EIS. This process begins with the publication of a NOI in the *Federal Register*. On September 23, 2002, DOE published an NOI to prepare the MPF EIS (67 FR 59577) and invited public comment on the MPF EIS proposal. Subsequent to this notice,

DOE held public scoping meetings in Amarillo, Texas; Carlsbad, New Mexico; Las Vegas, Nevada; Los Alamos, New Mexico; North Augusta, South Carolina; and Washington, DC. In addition, the public was encouraged to provide comments via mail, e-mail, fax, and the Internet.

A neutral facilitator conducted the meetings to direct and clarify discussions and comments. Court reporters were also present to provide a verbatim transcript of the proceedings and record any formal comments. All scoping meeting comments, along with those received by mail or Internet during the public scoping comment period were considered by DOE in preparing this EIS. A summary of the comments received during the public scoping process, as well as DOE's consideration of these comments, is provided in Appendix E of this EIS.

1.5.1 Summary of Major Comments Received

Nearly 1,600 comments were received from individuals, interested groups, and Federal, state, and local officials during the public scoping period, including approximately 480 oral comments made during the public meetings. The remainder of the comments (1,106) was submitted at the public meetings in written form, or submitted via U.S. mail, e-mail, or fax, over the entire scoping period. Some commentors who spoke at the public meetings also prepared written statements that were later submitted during or after the meetings. In this instance, each comment provided by an individual commentor in both oral and written form was counted as a single comment.

Many of the oral and written comments questioned the need for the MPF. In particular, commentors questioned why the facility was needed since the NOI stated that no problems that would require pit replacements had been found to date. Commentors also quoted several previous DOE documents and DOE and other government officials who stated that both the nuclear and nonnuclear parts of pits in the stockpile were stable and reliable into the foreseeable future.

Other commentors cited a number of studies done by both DOE and independent researchers that demonstrated the stability of plutonium, a main component of a pit, over time; thus commentors felt that until conclusive evidence on pit aging is established, a MPF is not necessary.

Several commentors dismissed the need for the Proposed Action by stating that the PF-4, the current interim production plutonium facility at LANL, analyzed in the 1996 *Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management* (DOE 1996c) for production of up to 80 ppy, already met the needs of pit refurbishment for the nuclear stockpile. Many commentors also noted that the NOI statement that "…DOE has been without the capability to produce plutonium pits…" is alarmist and false, considering the PF-4 capability.

Many commentors raised the issue of international treaties and decisions, particularly the Nuclear Nonproliferation Treaty, the Strategic Offensive Nuclear Reduction Treaty (Moscow Treaty), the Comprehensive Test Ban Treaty, and International Court of Justice Decision, July 1996 opinion, questioning whether a MPF would be consistent with international law. Commentors specifically stated that since the United States had agreed, under the Moscow Treaty, to reduce its number of operationally deployed strategic nuclear weapons to

approximately 1,700-2,200, the PF-4 was more than sufficient to meet pit refurbishment needs; thus a MPF would not be necessary. Furthermore, commentors wanted clarity on why "agility," defined in the NOI as the ability to change and expand pit production types and plutonium pit designs simultaneously, was necessary at all considering the United States had committed, under the Moscow Treaty, to reduce its number of weapons.

Other issues raised regarding need included questions on why the several thousand pits in reserve at Pantex could not be used to replace any potentially deteriorating pits in the active nuclear stockpile. Others questioned why a MPF was necessary at all since DOE had created the Stockpile Stewardship Program to monitor the nuclear stockpile. They went on to question that if a MPF were built, why would it be necessary to have both the Stockpile Stewardship Program and a MPF.

A significant number of commentors also expressed concern about the costs associated with building a MPF. Commentors wanted to see the full costs associated with each phase of a MPF: design, construction, operation, transportation of materials, waste handling and final disposition of waste, security, decommissioning, destruction and return of land to its original condition.

Several commentors expressed concern about environmental, safety, and health risks associated with a MPF, particularly the transportation of pit materials and waste across the Nation's highways. DOE representatives were urged to thoroughly evaluate the potential consequences of the Proposed Action on local wildlife, water resources, air quality, the potential for accidents and their consequences, and the health and safety of residents near a prospective site and along transportation routes. Commentors suggested that the EIS quantify all radionuclide and chemical emissions associated with the MPF Alternative. Many were concerned that a MPF would not avoid the waste and contamination problems of the old pit facility at the Rocky Flats Plant, which ceased operations in 1989.

Many commentors also expressed concern about the safety and security of a MPF from terrorist actions both from on the ground and from the sky and wanted to know what measures DOE would implement to prevent such actions.

Many commentors expressed support for the No Action Alternative. More than 70 of the comments received were part of a write-in postcard campaign objecting to nuclear weapons. Other commentors expressed favor or opposition to the MPF Alternative, reasons for which included security, cost, and workforce advantage. A number of commentors expressed support for a MPF. Major issues identified through the scoping period are addressed in this EIS by analyses in the following areas:

- Land resources, including land use and visual resources
- Site infrastructure
- Air quality and acoustics
- Water resources, including surface water and groundwater
- Geology and soils
- Biotic resources, including terrestrial resources, wetlands, aquatic resources, and threatened and endangered species

- Cultural and paleontological resources, including prehistoric resources, historic resources, and Native American resources
- Socioeconomics, including employment and local economy, population, housing, community or local government public finances, and local transportation
- Radiological and hazardous chemical impacts during normal operations and accidents
- Waste management
- Transportation of nuclear materials

In addition to analyses in these areas, the EIS also addresses unavoidable impacts and irreversible and/or irretrievable commitment of resources, and impacts of long-term production. A complete listing of the comments received, as well as how each specific comment was considered in the analysis of this document, is also included in Appendix E.

1.6 ORGANIZATION OF THIS ENVIRONMENTAL IMPACT STATEMENT

This EIS consists of two volumes. Volume I contains the main analyses, while Volume II contains technical appendixes that support the analyses in Volume I, along with additional project information. An Executive Summary is available as a separate publication. Volume I contains 11 chapters, which include the following information:

Chapter 1—Introduction: MPF EIS background and the environmental analysis process.

Chapter 2—Purpose and Need: Reasons why DOE needs to take action and purposes to be achieved.

Chapter 3—Proposed Action and Alternatives: The way DOE proposes to meet the specified need and achieve the objectives. This chapter also includes a summary comparison of the potential environmental impacts of the EIS alternatives and identifies any preferred alternative.

Chapter 4—Affected Environment: Aspects of the environment that might be affected by the EIS alternatives.

Chapter 5—Environmental Impacts: Analyses of the potential impacts on the environment. Impacts are compared to the projected environmental conditions that would be expected if no action were taken.

Chapter 6—Regulatory Requirements: Environmental, safety, and health regulations that would apply for the EIS alternatives, and agencies consulted for their expertise.

Chapters 7-11: An index; list of references; a list of preparers; a list of agencies, organizations, and persons to whom copies of this EIS were sent; and a glossary.

Volume II contains eight appendices of technical information in support of the environmental analyses presented in Volume I. These appendices contain the following information: details of the pit production process and requirements; human health; accidents; transportation; summary of scoping comments; methodology; project studies and notices; and contractor disclosure.